

## **Remarks**

### **1. Summary of Office Action**

In the office action mailed November 30, 2005, the Examiner rejected claims 1, 3, 10, 21, 25-26, and 28 under 35 U.S.C. § 103 as being allegedly obvious over a combination of U.S. Patent Application Pub. No. 2004/0203855 (Veersamy) and U.S. Patent Application Pub. No. 2002/0090947 (Brooks), the Examiner rejected claims 9 and 23-24 under 35 U.S.C. § 103 as being allegedly obvious over a combination of Veersamy and U.S. Patent No. 6,343,216 (Kim), and the Examiner rejected claim 29 under 35 U.S.C. § 103 as being allegedly obvious over a combination of Veersamy, Brooks, and U.S. Patent Application Pub. No. 2002/0042260 (Saucedo).

### **2. Status of Claims**

Applicant has amended dependent claims 23, 25, and 26, to change the term "network entity" to "base station" for consistency with Applicant's amendment of independent claim 21 in the previous response.

Pending in this application are claims 1, 3, 9-10, 21, 23-26, and 28-29, of which claims 1, 21, 28, and 29 are independent and the remainder are dependent.

### **3. Response to Rejections**

#### **a. Claims 1, 3, 9, and 10**

Of these claims, claim 1 is independent. The Examiner rejected claim 1 as being allegedly obvious over a combination of Veersamy and Brooks. Applicant respectfully traverses this rejection, because the combination of Veersamy and Brooks does not disclose or suggest all of the elements of claim 1, and because the Examiner has not pointed to any objective evidence that would suggest modifying Veersamy or Brooks to achieve the invention recited in claim 1.

Under M.P.E.P. § 2143, the Examiner has not made out the requisite *prima facie* case of obviousness of claim 1.

Claim 1 recites a method operable in a wireless communication system in which a mobile station engages in a call via air interface communication with a base station, the method involving (i) the base station making a determination that the call has been dropped, and (ii) responsively determining a call-drop location of the mobile station, wherein determining the call-drop location involves the base station sending a position request to position determining equipment to determine the location of the mobile station, the position request including a MIN identifying the mobile station.

At a minimum, the combination of Veersamy and Brooks fails to disclose or suggest the claim-function of determining a call-drop location of the mobile station *in response to* the base station making a determination that the call has been dropped, and the Examiner has not pointed to any objective evidence suggesting this element or suggesting that Veersamy or Brooks should be modified to achieve this element.

At best, Veersamy teaches a mechanism for a *mobile station* to report its location after a call drop occurs. However, Veersamy does not disclose or suggest the cause-and-effect function specifically recited in claim 1, namely, determining a call-drop location of a mobile station *in response to* the base station making a determination that the call has been dropped. This cause-and-effect function clearly requires that the base station make the determination that the call has been dropped, and that a call-drop location of the mobile station determined *in response to the base station making that determination*. Veersamy's teaching of a *mobile station* detecting a call-drop event and the mobile station responsively reporting its location to a network server cannot constitute this cause-and-effect function, because that does not amount to determining the

call-drop location *in response to the base station making the determination that the call has been dropped.*

In setting forth the rejection of claim 1, the Examiner asserted that "Veersamy et al. disclose . . . responsively determining a call drop-location of the mobile station (page 3, paragraph 34, call drop position)." (See office action, at page 2). However, paragraph 34 of Veersamy does not teach the "responsively" function of claim 1. In particular, paragraph 34 of Veersamy, like the rest of Veersamy, does not teach determining a call-drop location of the mobile station *in response to the base station determining that the call has been dropped.*

Furthermore, the Examiner seems to have suggested that Veersamy teaches, as part of the location-determination process, the function of having the base station send a "REPORT CALL DROP" message to the mobile station. (See office action, at pages 2-3.) As such, it appears that the Examiner has interpreted the function of transmitting a "REPORT CALL DROP" message to be a function of the base station sending a message in order to determine the call-drop location. However, claim 1 specifically recites that the determination of call-drop location is done *responsively to the base station making the determination that the call has been dropped.* Veersamy's teaching that a base station sends a "REPORT CALL DROP" message to a mobile station cannot be part of that *responsive location- determination process*, because Veersamy's base station sends the "REPORT CALL DROP" message to a mobile station *before* a call drop occurs, *rather than after* the call drop occurs.

According to the plain teaching of Veersamy, the transmission of the "REPORT CALL DROP" message functions merely to turn on the mobile station function of *later* reporting its call-drop location, i.e., so that, when a call drop later occurs, the mobile station will then report its location. (See, e.g., Veersamy, at paragraphs 53-61, and Figure 4.) Because Veersamy's

"REPORT CALL DROP" message is sent before the call drop event occurs, the act of sending the "REPORT CALL DROP" message cannot be part of Applicant's claimed location-determination process that occurs *in response to* the base station detecting occurrence of the call drop.

The secondary Brooks reference also fails to make up for this deficiency of Veersamy. At best, Brooks teaches a base station detecting a call drop. However, Brooks, like Veersamy, fails to disclose or suggest the function of *determining a call-drop location of a mobile station in response to the base station making a determination that the call has been dropped*. Thus, the combination of Veersamy and Brooks fails to disclose or suggest all of the limitations of claim 1.

Moreover, the Examiner has not pointed to any objective evidence that would suggest modifying either Veersamy or Brooks to achieve the invention of claim 1. In particular, the Examiner has not pointed to any objective evidence that would suggest modifying Veersamy or Brooks to provide the invention of claim 1 including the function of determining a call-drop location of a mobile station in response to the base station making a determination that the call has been dropped.

In this regard, the mere fact that Brooks teaches a base station detecting a call drop would not logically motivate a person of ordinary skill in the art to provide Applicant's claimed cause-and-effect function, namely, determining a call-drop location *in response to the base station detecting the call drop*. Likewise, the mere fact that Veersamy teaches a mobile station determining and reporting its own location in response to a call-drop would not logically motivate a person of ordinary skill in the art to provide Applicant's claimed cause-and-effect function.

Because the combination of Veersamy and Brooks fails to disclose or suggest all of the limitations of claim 1, and because the Examiner has not pointed to any objective evidence that would suggest modifying Veersamy or Brooks to achieve the invention of claim 1, a *prima facie* case of obviousness of claim 1 over Veersamy and Brooks does not exist. Therefore, Applicant submits that claim 1 is allowable. Furthermore, Applicant submits that claims 3, 9, and 10 are allowable for at least the reason that they depend from an allowable claim.

**b. Claims 21 and 23-26**

Of these claims, claim 21 is independent. The Examiner rejected claim 21 as being allegedly obvious over a combination of Veersamy and Brooks. Applicant respectfully traverses this rejection, because the combination of Veersamy and Brooks does not disclose or suggest all of the elements of claim 21, and because the Examiner has not pointed to any objective evidence that would suggest modifying Veersamy or Brooks to achieve the invention recited in claim 21. Under M.P.E.P. § 2143, the Examiner has not made out the requisite *prima facie* case of obviousness of claim 21.

Claim 21 recites a system in which a base station is arranged to (i) make a determination that a call in which a mobile station was engaged has been dropped and (ii) responsively cause position determining equipment (PDE) to determine a call-drop location of the mobile station.

As discussed above with respect to claim 1, the combination of Veersamy and Brooks does not disclose or suggest determining a call drop location *in response to* a base station making a determination that a call in which a mobile station was engaged has been dropped. Further, as discussed above with respect to claim 1, the Examiner has not pointed to any objective evidence that would suggest modifying Veersamy or Brooks to achieve this claim function. Thus, for at least the same reasons discussed above, a *prima facie* case of obviousness

of claim 21 over Veersamy and Brooks does not exist. Therefore, Applicant submits that claim 21 is allowable. Furthermore, Applicant submits that claims 23-26 are allowable for at least the reason that they depend from an allowable claim.

**c. Claim 28**

The Examiner also rejected independent claim 28 as being allegedly obvious over a combination of Veersamy and Brooks. Applicant respectfully traverses this rejection, because the combination of Veersamy and Brooks does not disclose or suggest all of the elements of claim 28, and because the Examiner has not pointed to any objective evidence that would suggest modifying Veersamy or Brooks to achieve the invention recited in claim 28. Under M.P.E.P. § 2143, the Examiner has not made out the requisite *prima facie* case of obviousness of claim 28.

Claim 28 recites a base station including (i) a first routing to make a determination that a call in which a mobile station was engaged has been dropped, and (ii) a second routine to responsively cause position determining equipment (PDE) to determine a call-drop location of the mobile station.

As discussed above with respect to claim 1, the combination of Veersamy and Brooks does not disclose or suggest determining a call drop location *in response to* a base station making a determination that a call in which a mobile station was engaged has been dropped. Thus, the combination does not disclose or suggest a ***base station*** that has a routine to determine that a call in which a mobile station was engaged has been dropped and another routine to ***responsively*** cause PDE to determine a call-drop location of the mobile station. Further, as discussed above with respect to claim 1, the Examiner has not pointed to any objective evidence that would suggest modifying Veersamy or Brooks to achieve this claim function.

Thus, for at least the same reasons discussed above, a *prima facie* case of obviousness of claim 28 over Veersamy and Brooks does not exist. Therefore, Applicant submits that claim 28 is allowable.

**d. Claim 29**

The Examiner rejected claim 29 as being allegedly obvious over a combination of Veersamy, Brooks, and Saucedo. Applicant respectfully traverses this rejection, because the combination of Veersamy, Brooks, and Saucedo does not disclose or suggest all of the limitations of claim 29, and because the Examiner has not pointed to any objective evidence that would suggest modifying Veersamy, Brooks, or Saucedo to achieve the invention recited in claim 29. Under M.P.E.P. § 2143, the Examiner has not made out the requisite *prima facie* case of obviousness of claim 29.

Claim 29, like claim 29, recites that a base station is arranged to (i) make a determination that a call in which a mobile station was engaged has been dropped and (ii) *responsively* cause PDE to determine a call-drop location of the mobile station.

As discussed above with respect to claim 1, the combination of Veersamy and Brooks does not disclose or suggest determining a call drop location *in response to* a base station making a determination that a call in which a mobile station was engaged has been dropped. Furthermore, the Examiner has not established that Saucedo makes up for this deficiency of Veersamy and Brooks. Thus, the Examiner has not established that a Veersamy/Brooks/Saucedo combination would disclose or suggest the invention of claim 29.

In setting forth the rejection of claim 29, the Examiner asserted that "the concept that the base station makes a determination that the call has been dropped; and sending a location request to a mobile switching center (MSC), the location request including an ID identifying the mobile

station; the MSC sending a position request to a mobile positioning center (MPC); the MPC forwarding the position request to the PDE; and the PDE responsively determining the location of the mobile station was well known in the art as taught by Brooks and Saucedo." (See office action at page 8.) As support for this assertion, the Examiner noted that Brooks teaches a base station detecting a call-drop, and the Examiner noted that Saucedo teaches an MSC requesting and receiving position information from an MPC. (*Id.*) However, even if Brooks and Saucedo teach these concepts, the Examiner has still not pointed to any objective evidence that suggests Applicant's claim feature of determining a call drop location *in response to* a base station making a determination that a call in which a mobile station was engaged has been dropped. Consequently, the Examiner has not established the requisite *prima facie* case of obviousness of claim 29. Applicant therefore submits that claim 29 is allowable.

#### 4. Conclusion

For these reasons, Applicant respectfully submits that claims 1, 3, 9-10, 21, 23-26, and 28-29 are allowable. Therefore, Applicant respectfully requests favorable reconsideration and allowance of the claims.

Should the Examiner wish to discuss any aspect of this case, the Examiner is invited to call the undersigned at (312) 913-2141.

Respectfully submitted,

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